

TITLE

FLUID CONDUIT AND PROCESS THEREFOR

ABSTRACT

A conduit such as a nozzle having its surface or a portion of its surface
5 coated with a thin fluid-repellent layer is disclosed. The layer comprises or is
produced from a fluorocarbon silane or a substantially aqueous emulsion. The
emulsion comprises or is produced from (1) a fluorocarbon silane or its
hydrolyzate, (2) water, and (3) optionally a surfactant, a silicon compound, a
catalyst, or combinations of two or more thereof where the fluorocarbon silane
10 has the formula $R_f-(CH_2)_p-Si\{-(O-CH_2CH_2)_n-OR^1\}_3$ and the silicon compound can
be a silicate or an organoalkoxysilane; R_f is a C_{3-18} perfluoroalkyl group or
combinations of two or more thereof; each R^1 is independently one or more C_{1-3}
alkyl groups; p is 2 to 4; and n is 2 to 10.